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Quarterly Review and Outlook First Quarter 2021

The Case for Decelerating Inflation

Contrary to the conventional wisdom, disinflation is more likely than accelerating inflation. Since prices deflated in the second quarter of 2020, the annual inflation rate will move transitorily higher. Once these base effects are exhausted, cyclical, structural, and monetary considerations suggest that the inflation rate will moderate lower by year end and will undershoot the Fed Reserve's target of 2%. The inflationary psychosis that has gripped the bond market will fade away in the face of such persistent disinflation.

Cyclical

After declining 5.2% in 2020, or the most since World War II, world-wide real per capita GDP is estimated to rise 4.7% in 2021. The United States will perform even better, rising 6.2%, after a contraction of 4.9% in 2020. The U.S. growth rate this year could be the fastest since 1984 and possibly even since 1950 (Chart 1). Five considerations suggest that such growth is not likely to lead to sustaining inflation.

First, inflation is a lagging indicator, as classified by the National Bureau of Economic Research. The low in inflation occurred after all of the past four recessions, with an average lag of almost fifteen quarters from the end of the recessions (Table 1). The shortest of these lags was six quarters with two of the lags more

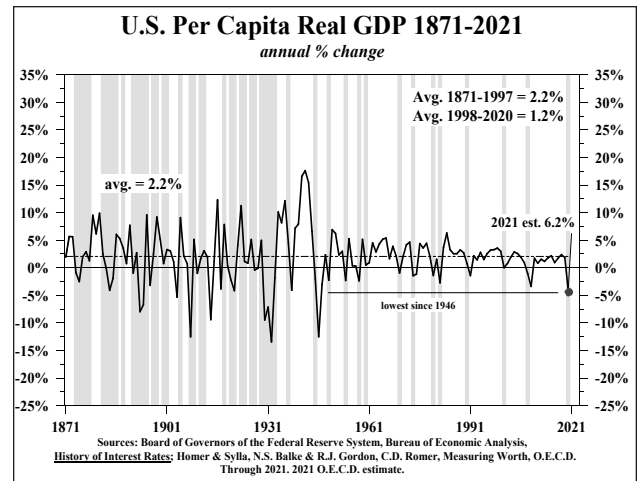


Chart 1

than six years. After the recession ended in Q4 2001, inflation troughed 7 quarters later. Although the core inflation rate moved higher, it remained close to the historical low for most of the expansion that lasted until early 2008. The same pattern held after the 2009 recession. The trough arrived within six quarters, but once again the core inflation rate remained near that low until the recession arrived with

Inflation Troughs After Recessions

	Last Quarter of Recession	Low Point in Inflation After End of Recession	Lag in Quarters
1.	Q4 1982	Q1 1987	17
2.	Q1 1991	Q2 1998	29
3.	Q4 2001	Q3 2003	7
4.	Q2 2009	Q4 2010	6
5.	Average		14.8

Source: Bureau of Economic Analysis, N.B.E.R. Inflation is represented by the Core PCE price index.

Table 1

the pandemic in 2020. So, hitting a technical trough has not coincided with substantially faster inflation.

Second, productivity rebounds in recoveries and vigorously so in the aftermath of deep recessions. This pattern in productivity is quite apparent after the deep recessions ending in 1949, 1958 and 1982 (Table 2). Productivity rebounded by an average of 4.8% in the year immediately after the end of these three recessions and unit labor costs were unchanged. The rise in productivity held down unit labor costs.

Third, restoration of supply chains will be disinflationary. Supply chains were badly disrupted by the pandemic. Low-cost producers in Asia and elsewhere were unable to deliver as much product into the United States and other relatively higher cost countries. This allowed U.S. producers to gain market share. As immunizations increase, supply chains will be gradually restored. Thus, the pandemic cost the low-cost producers market share which was shifted to domestic producers. The pandemic did far more for domestic firm’s pricing than the tariff increases of the previous administration. The low-cost producers will want to regain market share while the high-cost producers

whose fortunes were unexpectedly helped will try to hold market share. Bottlenecks are widely prevalent at U.S. ports, reflecting the incoming surge of goods. This will lead to price wars. Already some evidence indicates this is the case. The core inflation rate peaked at 3.3% annual rate in the three months ended last August, when the supply disruptions were most severe. In the three months ending February, the core inflation rate dropped 2.4%. Moreover, the core inflation rate is even lower in China, suggesting that this new additional competition will hold prices down.

Fourth, accelerated technological advancement will lower costs. Another restraint on inflation is that the pandemic greatly accelerated the implementation of inventions that were in the pipeline. Necessity is the mother of invention, as has been demonstrated in earlier crisis situations like wars. Thus, the technology du jour is not the same as the technology of a year ago. This will also serve to act as a restraint on inflation. Much of the technology substitutes machines for people, communication without travel, and work without offices.

Fifth, eye popping economic growth numbers, based on GDP in present circumstances, greatly overstate the presumed significance of their result. This is where the fallacy of the broken glass comes into play. Many businesses failed in the recession of 2020, much more so than normal. As survivors and new firms take over their markets, this will be reflected in GDP, but the costs of the failures will not be deducted.

Structural Impediments

The two main structural impediments to traditional U.S. and global economic growth are massive debt overhang and deteriorating demographics both having worsened as a consequence of 2020. These forces are

Sharp Economic Rebounds: Productivity and Unit Labor Costs <i>year over year % change</i>				
		Real Per Capita GDP	Productivity	Unit Labor Costs
1.	1949	-2.3%	3.2%	-0.3%
2.	1950	6.9%	6.7%	-0.7%
3.	1958	-2.4%	2.3%	1.6%
4.	1959	5.1%	3.5%	0.3%
5.	1982	-2.7%	-0.8%	8.2%
6.	1983	3.6%	4.1%	0.4%
7.	Avg. Post Recession Years	5.2%	4.8%	0.0%

Source: Bureau of Economic Analysis and Bureau of Labor Statistics. Productivity is nonfarm business productivity.

Table 2

disinflationary, and they reinforce each other.

The Ever-Deeper Debt Trap

Before the pandemic, economic growth was decelerating as confirmed by a decline in world trade in 2019, one of the few yearly declines in the history of this series. While the huge debt financed programs were a response to the pandemic, the end result is that global nonfinancial debt increased to a record 282% of GDP in 2020. The 37% surge of debt relative to GDP was also a record. While this debt may be politically popular and socially necessary, it will weaken growth and inflation after a transitory spurt, which will lead to even more disappointing business conditions than existed prior to the pandemic.

The actual global debt situation may be worse than these numbers indicate because they include China, the world’s second largest economy. Scholarly forensic research indicates that Chinese GDP is overstated by at least 18%. Thus, the official Chinese debt to GDP ratio is suppressing the global numbers. A comparative analysis of money velocity confirms the suspicion about the Chinese figures. Money velocity in China in 2020 was 0.44 versus 1.19 in the U.S. Admittedly money and debt are not identical, but they are opposite sides of the balance sheet and the glaring gap is too much to be ignored.

Turning to the major foreign economic powers with credible data, the debt situation deteriorated at much faster pace in Europe and Japan than in the U.S. (Chart 2). In 2020, measured by the ratio of total debt to GDP, the Euro Area was 124.3% of GDP higher than in the U.S. while Japan exceeded it by 292.3%. The debt to GDP ratio in the Euro Area and Japan has consistently outpaced that of the U.S. This explains why U.S. GDP growth has consistently registered superior economic

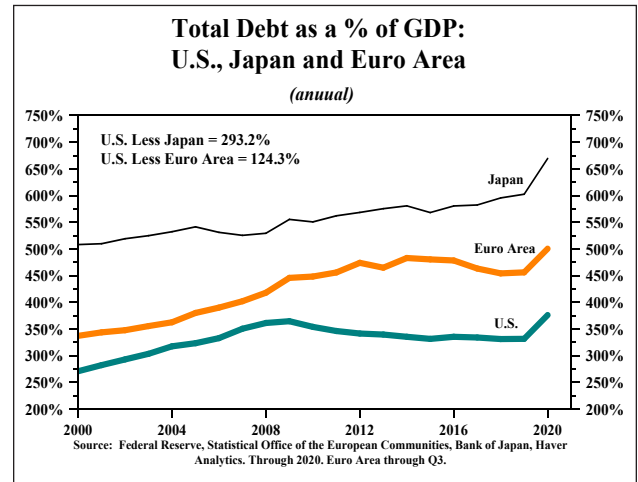


Chart 2

performance. In 1995, the U.S. economy was 4% greater than the Euro Area, but 98% larger than Japan. In 2020, the U.S. economy was 34% and 200% larger, respectively, than the Euro Area and Japan. The comparatively worse debt overhang in the Euro Area and Japan indicates the U.S. should continue to be the growth leader.

The United States has experienced five secular debt surges: (1) the 1820s and 1830s, (2) the 1860s and 1870s, (3) 1920s and 1930s, (4) the 2000s and 2010s and (5) 2020 (Table 3). Total debt to GDP surged to new record heights in each successive case, including 2020. While data for the 1820-1830s is incomplete, no doubt exists that the debt peak in 1873 was higher. Disinflationary conditions occurred in all cases, with three periods of deflation. The

	Year	Peak Level	Years Between Peaks	Inflation Outcome
1.	1838			Deflation
2.	1873	138.3%	35	Deflation
3.	1929-30	183.5%	56	Deflation
4.	2008-09	402.6%	79	Disinflation
5.	2020	407.7%	12	Disinflation
6.	Average	283.0%	46	

Sources: Bureau of Economic Analysis, Federal Reserve, Congressional Budget Office, Census Bureau; Historical Statistics of the United States Colonial Times to 1970. Through 2020.

Table 3

unique aspect about 2020 is that the debt surge occurred so quickly after the previous one. On average, the debt peaks occurred 46 years apart in the history of the United States, however, the 2020 peak exceeds the prior secular peak of 2008 by a mere 12 years. This shows the increasing over reliance on debt to solve economic problems. While the debt works transitorily, real per capita GDP, which is a measure of the standard of living, continues to lose momentum as the debt levels move higher. In 1997, debt as a percent of GDP reached levels that various scholarly studies indicate begin to induce economic decline. From 1870 to 1997, real per capita GDP advanced 2.2% per annum, the growth since then has only been 1.2% per annum. Compounded over 23 years, this is substantial loss. If the 2.2% growth rate had been maintained since 1997, real per capita GDP would be 25% higher.

The disinflationary/deflationary consequences of the debt levels conform with scholarly research from the 19th century to the present that indicates that high debt levels undermine economic growth. This causality is supported by the law of diminishing returns, derived from the universally applicable production function. The historical record is consistent with research that the government debt multiplier is negative, not positive, and the high levels of gross government debt has a deleterious effect on real per capital GDP growth. This research indicates that the negative effect begins when gross government debt reaches 40-50% of GDP and the impact rises steadily as the ratio of government debt to GDP moves higher. At the end of 2020, gross U.S. government debt reached a record 129.1% of GDP, with new peaks reached in all major foreign economic countries.

Disinflationary Effects of Eroding Demographics
Since 1980 global population growth has

dropped dramatically. During this forty-year span, the average age of the world has increased and sharply so in the major economies – the U.S., Japan, China and the Euro Area. As the birth rate falls population growth will weaken further, while the average age of the population will continue to rise. Such negative demographics will restrain real investment and economic growth while placing downward pressure on inflation. The birth and family formation rates are positively correlated with investment by both households and businesses. The U.S. and Chinese birth rates are both at record lows, but those in China have deteriorated much faster than in the U.S. and to even weaker levels as result of the long period of the One-child policy and a major mismatch between childbearing women and young men.

Japan has a declining and aging population, with a falling birth rate as well. While the poorer demographics might be presumed to lift wage rates, the negative real investment effect dominates, producing a disinflationary/deflationary force of its own. In Europe, population growth is weaker than in the U.S. and the population is aging faster and the birth rate is lower, thus upward price pressures are less than in the U.S. U.S. population growth dropped precipitously from 1.15% per annum in 1990 to 0.35% in 2020, wage pressures eased sharply and so did inflation. The U.S. had rapid population growth in the 1960s, 1970s and 1980s, which contributed to wages and inflation accelerated rapidly.

Technology could possibly offset the negative demographics but Robert A Gordon, in the outstanding book, *The Rise and Fall of American Economic Growth*, noted that the current type of inventions are different in previous periods of strong U.S. economic growth. Revolutionary technology, like the internal combustion engine, transmission

of electricity, modern sanitation, modern communication, and new discoveries in pharmaceuticals and chemistry, all enhanced the demand for labor and natural resources. Evolutionary technology, which is the type currently being experienced, diminishes the demand for labor and natural resources. For example, the impact on check-out counters is already evident, as are assembly lines manned by robots. If the supply chain disruptions caused by the pandemic lead to more domestic manufacturing, these plants will employ robots and all of the latest technological developments. This would shrink the worldwide demand for labor and global income growth, although there may be some benefit to regional countries.

Monetary Conditions

Quantitative Measures

M2 increased 19.2% from 2019 to 2020, the fastest since the 26.4% gain in 1943. However, velocity neutralized this impact on nominal GDP by falling to 1.19, dropping below the previous record low set seven and a half decades ago. When money increases and velocity falls, the money is trapped in the financial markets and has only a minimally lasting impact on the real economy. Federal Reserve credit, also referred to as the Fed's balance sheet, surged 77.4% last year and has continued to advance this year as the Fed has bought U.S. government and mortgage-backed securities at the rate of \$120 billion per month.

Price

The Fed considers this policy mix to be stimulative and accommodative, as the Fed Chair and numerous other officials have frequently commented. The other rail of monetary policy – the policy rate – leads to an alternative conclusion. The policy rate should not be ignored since it is the price mechanism that transmits monetary policy to the broader

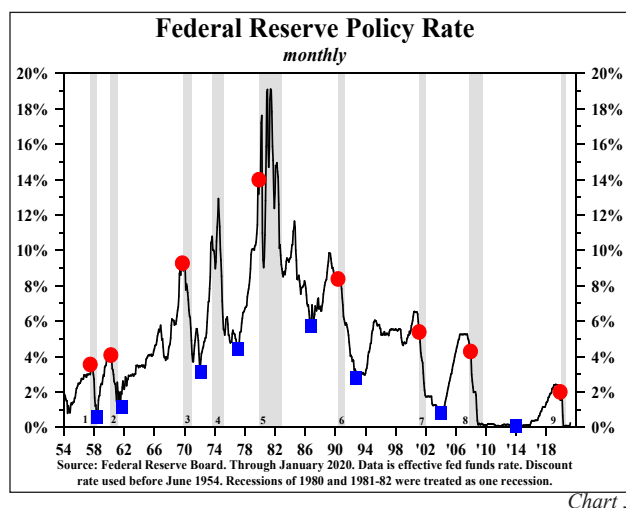


Chart 3

economy. Price changes shift incentives and when they do not move, the private sector is not motivated to change behavior.

With the policy rate stuck on the zero bound and the Fed strongly opposed to negative rates, the Fed's price mechanism vehicle for monetary transmission is out of action. Based on the seventy-year history of the policy rate, this suggests that Fed policy actions will be severely enfeebled (Chart 3). This record indicates that the policy rate declines well into the expansions. In other words, the Federal Funds rate, like inflation, is a lagging indicator. Equally important, the rate declines substantially during this period. In Chart 3 the troughs in the policy rate, represented by the blue squares occur long after the start of the recessions. The average difference is 38 months. The only short lags occurred in the 1950s and 1960s when the economy's initial conditions were much stronger than they are presently. Since 1970, none of the lags were less than 26 months. Since the recession started in February 2020, an average post 1970 lag would place the low in the Federal Funds rate in April 2022. If applying the average lag of 38 months for the entire history, then the low in the policy rate would not happen until April 2023. During these long lags, the policy rate declined by an average of 477 basis points. Since the

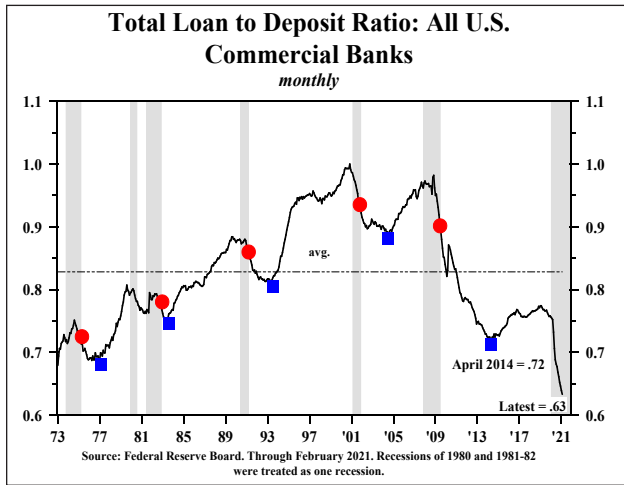


Chart 4

Fed Funds rate was 1.58% in February 2020, applying this historical relationship would mean that the policy rate would need to become more negative than the policy rate anywhere in the world currently.

Role of the Banks

The depository institutions and their private sector customers play a major role in the transmission of monetary policy. It is often incorrectly assumed that ample availability of reserves will lead to increased lending. For loan volumes to rise the banks must be able to price the risk premium into their loan rates and their customers must be willing to pay those rates. The measure that captures this process is the loan to deposit ratio which is also considered a lagging indicator. In addition, the loan to deposit ratio is a key gauge of the profitability of the depository institutions, particularly so for the medium and smaller sized ones. The loan to deposit ratio suggests that a reversal in monetary policy is well into the future. This ratio has just slumped to a new low for the history of the series that starts in 1973 (Chart 4). The chairman of the largest US depository institution recently said that he could not make a profit from lending their deposits. From 1990, when initial conditions began deteriorating significantly, the lag between the start of the recessions and the low in the loan/deposit ratio

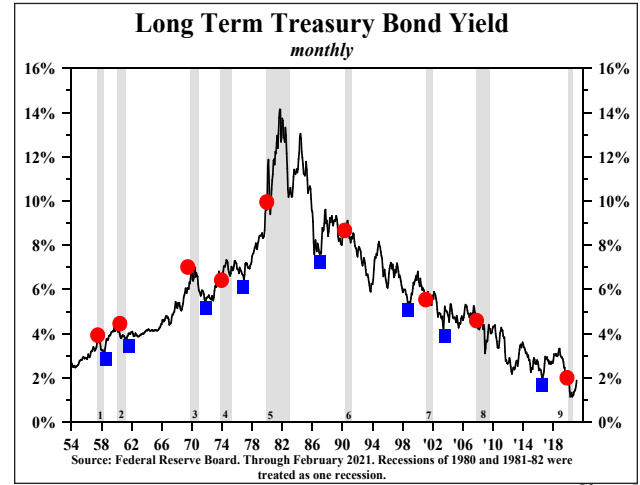


Chart 5

was 39 months and the lag for the policy rate was 45 months. A replay of such a lag would point to a reversal in the spring of 2023 or later.

The Bond Yield

Inflation is the key determinant for the level and direction of long term treasury yields. Due to the lagging nature of inflation, long Treasury bond yields lag as well. Since the Treasury market began freely trading in the early 1950s, the lag between the start of the recession and the trough in the yield averaged 49 months (Chart 5). This gap is quite apparent on the chart, with the red dots representing ends of the recessions and the blue squares the bond yield cyclical lows. However, the initial conditions are much worse from 1990 to the present than the previous 35 years. Since 1990, the lag between the start of a recession and the bond yield trough jumped to 76 months. The economic fundamentals currently at work suggest that long lags will be a feature in the cycle ahead. While no two cycles are ever alike, the trend in long bond yields remains downward.

Hoisington Investment Management

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